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EXAMINER	
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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OSCAR MING KIN LAW

Appeal 2009-005732
Application 10/820,556
Technology Center 2800

Before MAHSHID D. SAADAT, CARLA M. KRIVAK, and CARL W. WHITEHEAD, JR., *Administrative Patent Judges.*

WHITEHEAD, JR., *Administrative Patent Judge.*

DECISION ON APPEAL[1]

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[1] The two-month time period for filing an appeal or commencing a civil action, as recited in 37 C.F.R. § 1.304, or for filing a request for rehearing, as recited in 37 C.F.R. § 41.52, begins to run from the "MAIL DATE' (paper delivery mode) or the "NOTIFICATION DATE" (electronic delivery mode) shown on the PTOL-90A cover letter attached to this decision.

STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 from the Examiner's rejection of claims 1, 7-10, 12-20, 23 and 24. Appeal Brief 13. We have jurisdiction under 35 U.S.C. § 6(b) (2002). We affirm.

BACKGROUND OF THE INVENTION

Appellant's invention is directed to a device for adaptively controlling supply voltages and body biases for computing devices, implemented within an integrated circuit, each having different ones of a plurality of different threshold voltages, thereby providing control over performance and leakage current. *See* Appeal Brief 7.

Claim 1, which further illustrates the invention, follows:

1. An adaptive supply voltage and body bias apparatus comprising:

a master controller operatively responsive to an operation state value;

a dynamic voltage supplier operably coupled to the master controller, the dynamic voltage supplier operative to receive a supply voltage indicator from the master controller;

an adaptive body biaser operably coupled to the master controller, the adaptive body biaser operative to receive a body bias indicator from the master controller; and

a plurality of computing devices, each of the computing devices having different ones of a plurality of different threshold voltages, each of the plurality of computing devices being operative to receive a supply voltage from the dynamic voltage supplier and the plurality of computing devices being operative to receive at least one body bias voltage from the adaptive body biaser;

wherein the master controller further generates a second supply voltage indicator and a second body bias indicator based on a difference between optimized performance and actual performance of the plurality of computing devices, the master controller operative to provide the second supply voltage indicator to the dynamic voltage supplier and operative to provide the second body bias indicator to the adaptive body bias circuit.

The Rejection

Claims 1, 7-10, 12-20, 23, and 24 stand rejected under 35 U.S.C. § 103(a), as being unpatentable over Katoh (U.S. Patent 6,380,764 B1) and Miyazaki (U.S. Patent 6,774,705 B2). *See* Answer 3-4.

ISSUE

Is the combination of Katoh and Miyazaki improper because Katoh teaches away from the teachings of Miyazaki?

PRINCIPLE OF LAW

> Where claimed subject matter has been rejected as obvious in view of a combination of prior references, a proper analysis under § 103 requires, *inter alia*, consideration of two factors: (1) whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process; and (2) whether the prior art would also have revealed that in so making or carrying out, those of ordinary skill would have a reasonable expectation of success.

In re Vaeck, 947 F.2d 488, 493 (Fed. Cir. 1991) (citations omitted). "Obviousness does not require absolute predictability of success. . . . For obviousness under § 103, all that is required is a reasonable expectation of success." *In re O'Farrell,* 853 F.2d 894, 903-04 (Fed. Cir. 1988).

ANALYSIS

Appellant argues that the combination of Katoh and Miyazaki is improper because Katoh expressly teaches away from the suggested combination. *See* Appeal Brief 17. The Examiner asserts that while Katoh may preclude the teachings of the published unexamined Japanese Patent Application No. Hei 8-274620 and the proposal in the IEEE Journal of

Solid-State Circuits, Vol. 30, No. 8, August 1995 (*see* Katoh, col 1, l. 52 - col 2, l. 63), Appellant has failed to show that these circuits are the same circuits disclosed in Miyazaki. *See* Answer 4-5. The Examiner further asserts that the circuits disclosed in Miyazaki are different from the circuits disclosed in Katoh for various reasons including that low power consumption is realized without degrading the operating speed of the CMOS circuit. *Id.* at 5. Appellant does not challenge the Examiner's assertions about the differences between Miyazaki and the technology disclosed in Katoh. *See* Appeal Brief 16-17. Therefore we do not find Appellant's argument that Katoh teaches away from Miyazaki to be persuasive. Appellant further argues against the combination of Katoh and Miyazaki based upon three arguments: (1) the combination would change an operating principle of Katoh; (2) the combination has no reasonable expectation of success; and (3) the combination is improper because one of ordinary skill in the art would not be motivated to combine the references. *See* Appeal Brief 17-20. The test for obviousness is what the combined teachings of the references would have suggested to one of ordinary skill in the art. *See In re Kahn*, 441 F.3d 977, 987-88 (Fed. Cir. 2006), *In re Young*, 927 F.2d 588, 591 (Fed. Cir. 1991) and *In re Keller*, 642 F.2d 413, 425 (CCPA 1981). The Examiner can satisfy this test by showing "some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness". *KSR Int'l. v. Teleflex Inc.*, 550 U.S. 398, 418 (2007) (*citing In re Kahn*, 441 F.3d at 988). The Examiner relied upon Miyazaki's delay control circuit to control the delay of Katoh's delay circuit in order to maintain an accurate delay. *See* Answer 3. Therefore, the Examiner has articulated a rationale for combining the reference with some rational underpinning to support his

conclusion of obviousness. Appellants do not present arguments that challenge the Examiner's rationale for combining the references based upon Katoh's delay circuit modification in view of Miyazaki and therefore, we do not find the Appellant's arguments to be persuasive.

DECISION

We affirm the Examiner's 35 U.S.C. § 103(a) rejection of claims 1, 7-10, 12-20, 23 and 24 over Katoh and Miyazaki.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(v).

AFFIRMED

gvw

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